

**Amendments to the Claims:**

This listing of claims will replace all prior versions, and listings, of claims in the application:

**Listing of Claims:**

1. (Previously Presented) A pet door comprising a flap defining a pet access opening, a door flap pivotally mounted in the opening about a pivot axis located at an upper edge of the door flap, a latch mechanism to bar the door flap from opening in at least one direction, and a control mechanism for disabling the latch mechanism to permit the door flap to open in the said at least one direction, the control mechanism including an infrared radiation detector which is mounted above a lower edge of the pet access opening and defines a downwardly directed receiving zone for infrared radiation.
2. (Previously Presented) A pet door according to claim 1 wherein the infrared radiation detector is disposed above the door flap.
3. (Previously Presented) A pet door according to claim 1 wherein the infrared radiation detector depends downwardly into an upper edge of the pet access opening.
4. (Currently Amended) A pet door according to [any one of claims] claim 1 [to 3] wherein the infrared radiation detector is disposed adjacent to or extends through a hole in a wall defining an upper edge of the pet access opening.
5. (Currently Amended) A pet door according to [any foregoing] claim 1 wherein the infrared radiation detector is disposed adjacent to an upper portion of the door flap.
6. (Currently Amended) A pet door according to [any foregoing] claim 1 wherein the downwardly directed receiving zone for infrared radiation is conical.

7. (Currently Amended) A pet door according to [any foregoing] claim 1 wherein the downwardly directed receiving zone for infrared radiation has a total beam angle of from 60° to 120°.
8. (Previously Presented) A pet door according to claim 7 wherein the downwardly directed receiving zone for infrared radiation has a total beam angle of about 90°.
9. (Currently Amended) A pet door according to [any foregoing] claim 1 wherein electrical components of the control system are located in a common part of the frame above the pet access opening.
10. (Previously Presented) A pet door according to claim 9 wherein the electrical components of the control system and the infrared radiation detector are mounted to a common circuit board located in a cavity of the frame above the pet access opening.
11. (Currently Amended) A pet door according to claim 9 [or claim 10] wherein the electrical components of the control system include an actuator motor for operating a mechanical actuator for the latch mechanism.
12. (Currently Amended) A pet door according to [any foregoing] claim 1 further comprising an attenuating device for ambient infrared radiation in the vicinity of the infrared radiation detector.
13. (Previously Presented) A pet door according to claim 12 wherein the attenuating device comprises an infrared absorbing material.
14. (Previously Presented) A pet door according to claim 12 wherein the attenuating device comprises a light filter which is adapted to permit transmission therethrough only of infrared radiation of a selected wavelength.

15. (Currently Amended) A pet door according to [any foregoing] claim 1 which comprises a cat flap, the latch mechanism being arranged to bar the door flap from opening in one direction and the infrared radiation detector being located on the unlatched side of the door flap.
16. (Currently Amended) A pet door according to [any one of claims] claim 1 [to 14] which comprises a dog door, the latch mechanism being adapted to bar to the door flap from opening in both directions, the infrared radiation detector being located on one side of the door flap, and the door flap is adapted to permit infrared radiation to pass therethrough from the other side of the door flap to be received by the infrared radiation detector.
17. (Currently Amended) A pet door according to claim [16 when appendant on claim] 11 which comprises a dog door, the latch mechanism being adapted to bar to the door flap from opening in both directions, the infrared radiation detector being located on one side of the door flap, and the door flap is adapted to permit infrared radiation to pass therethrough from the other side of the door flap to be received by the infrared radiation detector wherein the latch mechanism is operated by at least one mechanical actuator operated by at least one actuating motor.
18. (Currently Amended) A pet flap according to claim 16 [or claim 17] wherein the door flap is provided with a window, which is substantially transparent to infrared radiation, adjacent to the infrared radiation detector.
19. (Previously Presented) A key for a pet door, the key comprising a housing which is adapted to be fitted to a pet collar, the housing having a window which is substantially transparent to infrared radiation and containing an infrared radiation transmitter, a control circuit and a source of electrical power, with the infrared radiation transmitter being located adjacent to the window.

20. (Previously Presented) A key according to claim 19 wherein the housing is adapted to depend downwardly from a pet collar so that the window is in a downwardly directed orientation.
21. (Previously Presented) A key according to claim 20 wherein the infrared radiation transmitter is adapted to transmit infrared radiation over a downwardly directed conical transmitting zone.
22. (Currently Amended) A key according to [any one of claims] claim 19 [to 21] wherein the infrared radiation transmitter has a beam angle with a total angular extent of from 30° to 90°.
23. (Previously Presented) A key according to claim 22 wherein the infrared radiation transmitter has a beam angle with a total angular extent of about 60°.
24. (Currently Amended) A key according to [any one of claims] claim 19 [to 21] wherein the infrared radiation transmitter has a beam angle with a total angular extent of from 10° to 40°.
25. (Previously Presented) A key according to claim 24 wherein the infrared radiation transmitter has a beam angle with a total angular extent of about 24°.
26. (Currently Amended) A key according to [any one of claims] 19 [to 25] wherein the housing includes a handle and is adapted to be suspended, by the handle, at a selected angular orientation.
27. (Previously Presented) A key according to claim 26 wherein an opening is defined in the handle to receive a suspension element therethrough, and the handle is shaped and positioned so that when the key hangs from the suspension element, the housing is suspended within a particular range of angular inclinations with respect to the horizontal.

28. (Previously Presented) A key according to claim 27 wherein a beam axis of the infrared transmitter is inclined at an angle of from 20 to 60° to the horizontal when the key is suspended by the suspension element.
29. (Previously Presented) A key according to claim 28 wherein a beam axis of the infrared transmitter is inclined at an angle of about 30° to the horizontal when the key is suspended by the suspension element.
30. (Currently Amended) A key according to [any one of claims] claim 27 [to 29] wherein the handle is adapted to fix a rigid suspension element at a selected angle with respect to the housing when the key is suspended by the suspension element.
31. (Previously Presented) A key according to claim 27 wherein a beam axis of the infrared transmitter is inclined at an angle of about 45° to the horizontal when the key is suspended by the suspension element.
32. (Currently Amended) A key according to claim 27 [or claim 31] wherein the opening of the handle is positioned relative to the centre of gravity of the key so that when the key is suspended by a suspension element, the key hangs under its own weight with a beam axis of the infrared transmitter at a selected angle with respect to the horizontal.
33. (Currently Amended) A key according to [any one of claims] claim 19 [to 32] wherein the control circuit is adapted periodically to cause transmission of a coded infrared signal from the infrared radiation transmitter.
34. (Currently Amended) The combination of a pet door according to [any one of claims] claim 1 [to 18] and a key according to [any one of claims] claim 19 [to 33].
35. (Deleted)
36. (Deleted)

37. (New) A pet door comprising a flap defining a pet access opening, a door flap pivotally mounted in the opening about a pivot axis located at an upper edge of the door flap, a latch mechanism to bar the door flap from opening in at least one direction, a control mechanism for disabling the latch mechanism to permit the door flap to open in the said at least one direction, the control mechanism including an infrared radiation detector which is mounted above the door flap and defines a downwardly directed conical receiving zone for infrared radiation which has a total beam angle of from 60° to 120°, and an attenuating device for ambient infrared radiation in the vicinity of the infrared radiation detector.